

REMARKS

Claims 1, 6, 7, 10, 12, 13, 15, 18 and 19 are canceled herein without prejudice to the patentability of these claims. Claims 3 and 9 have been amended and claims 28-39 are added herein. Claims 2-5, 8, 9, 11, 14, 16, 17, 20, 21 and 28-39 will be pending upon entry of this amendment, with claims 2, 4, 5, 8, 11, 14, 16, 17, 20 and 21 remaining withdrawn from consideration.

The following remarks are responsive to the Office action dated September 15, 2003.

I. Response to Objection to Drawings

Figures 2 and 3 have been amended in response to the objections raised in paragraphs 3 and 6, respectively, of the Office action.

Figures 8 and 9 have been added herein to show certain features recited in the claims as required in paragraph 4 of the Office action. More particularly, Fig. 8 has been added to illustrate one of the loop fasteners 84, 85 as comprising a nonwoven loop material secured to a substrate. Support for the added drawing can be found at least at page 23, lines 23-27 and in the claims of the application as originally filed.

Figure 9 has been added to show the orientation of the constituent fibers of the nonwoven web when the web is in an extended configuration. The photomicrograph of Fig. 9 illustrates that upon extending the web in a direction of extension, more of the fibers of the web become oriented generally in the direction in which the web is extended. Support for adding Fig. 9 can be found at least at page 9, lines 16-18; page 27, line 8 to page 28, line 20; and the

claims of the application as originally filed. Further support can be found at page 28, lines 21-23 wherein U.S. Patent No. 4,965,122 is incorporated by reference. Figure 9 being added herein corresponds to Fig. 5 of the '122 patent.

The amendments made to Figs. 2 and 3 and the addition of Figs. 8 and 9 are submitted to place the drawings in proper form for allowance. The oriented nonwoven loop material and substrate as recited in the claims (including the claims as amended by this amendment) are now shown in the drawings.

Applicants submit that the elasticity or inelasticity of a material, and the bonding of one material to another, are not structural features that must be shown in the drawings to achieve an understanding of the invention. Such terms are sufficiently described in the specification and are commonly used in the art without the need to show such features in the drawings.

In the event that the Office maintains any objections to the drawings the undersigned respectfully requests a phone call from the Examiner to further discuss such objections.

Response to Objections to the Specification

In response to paragraph 5 of the Office action, the Abstract has been replaced to overcome the deficiencies asserted by the Office.

In response to paragraph 6 of the Office action, Fig. 3 is amended herein to delete reference number 78 and the lead line extending therefrom.

Additional amendments have been made to the specification to reference new Figs. 8 and 9. These amendments do not add

new matter as discussed previously in connection with the response to the drawing objections.

In view of the above, the specification is submitted to be in proper form for allowance.

Response to Objections to Claims

Claims 12, 13, 15 and 19 have been canceled herein. Consequently, the objections to the claims made in paragraph 7 of the Office action are submitted to now be moot.

Response to Rejection of Claims Under 35 U.S.C §112

The rejection of claims 1, 3, 6-7 and 9-10 are submitted to be moot in view of the cancellation herein of claims 1, 6-7 and 10. Moreover, claim 3 has been amended herein to provide proper antecedent basis to the term "machine-direction" and to clarify that the recited machine direction is that of the oriented nonwoven loop material.

The claims as now presented are therefore submitted to satisfy all of the requirements of 35 USC §112.

Response to Rejection of Claims Under 35 USC §102/103

Original independent claims 1, 12 and 15 have been canceled by this amendment and new independent claims 28, 33 and 38 have been added.

Claim 28

New claim 28 is directed to a mechanical fastening system for an article in which one of the fastening components of the fastening system comprises an oriented nonwoven loop material. The oriented nonwoven loop material comprises a nonwoven web of

fibers which is extensible and is in an extended configuration upon being secured to a substrate, such as the article itself or a substrate that is formed separate from and can be subsequently secured to the article. As a result of extending the extensible nonwoven web of fibers, a greater number of fibers of the web become oriented generally in the direction in which the web is extended.

More particularly, claim 28 recites a mechanical fastening system for an article wherein the mechanical fastening system comprises:

a first fastening component comprising an oriented nonwoven loop material secured to a substrate, the oriented nonwoven loop material comprising a nonwoven web of fibers, said web being extensible from a relaxed configuration to an extended configuration wherein in the extended configuration a greater number of fibers of the nonwoven web are oriented in the direction in which the web is extended than in the relaxed configuration of the web, the web being in its extended configuration on the substrate; and

a second fastening component comprising a hook material, the oriented nonwoven loop material of the first fastening component being adapted for releasable connection with the hook material of the second fastening component.

New claim 28 is submitted to be patentable over the references of record, and in particular EP 0 289 198 (Noel et al.) and WO 97/25893 (Weirich et al.), in that whether considered alone or in combination the references fail to show or suggest a mechanical fastening system comprising an oriented nonwoven loop material on a substrate wherein the oriented nonwoven loop material comprises an extensible nonwoven web of

fibers which is in an extended configuration on a substrate and wherein in the extended configuration a greater number of fibers of the nonwoven web are oriented generally in the direction in which the web is extended.

Noel et al. disclose a loop fastening material comprising a backing (22) of orientable material, preferably a heat shrinking material, and a multiplicity of fibrous elements (28) extending outward from the backing (22). The fibrous elements (28) are intermittently secured to the backing (22) at spaced, fixed regions 32 along the length of each filament while the orientable backing material is in an unstable state. Upon movement back to the stable state of the backing material, the fibrous material is shirred to form loops which can be connected to a hook material (52). In one embodiment, the backing material is a heat shrinkable material and in another embodiment the backing material is an elastomeric material.

Noel et al. lack any disclosure that the fibrous elements (28) are extensible, and even moreso fail to disclose that the fibrous elements are in an extended configuration on the backing material. Rather, the backing material is an unstable (e.g., shrinkable or stretched) condition when the fibrous elements are secured to the backing. As a result, shirring of the fibrous elements occurs when the backing material moves to its stable condition. In contrast, the nonwoven web of fibers of the loop material of applicants' first fastening component as recited in new claim 28 is extensible and is in a drawn, or extended configuration on the substrate.

Weirich et al. disclose a female component of a refastenable fastening device. The female component comprises an elastomeric adhesive backing (34) and a multiplicity of

fibrous elements (30) extending from the backing. Weirich et al. disclose that the multiplicity of fibrous elements (30) may be a nonwoven web. According to Weirich et al., the female component is formed by securing the nonwoven web (30) to the elastomeric backing (34) while the backing is elongated so that when the backing is allowed to return to a relaxed state the nonwoven web is shirred. Nowhere do Weirich et al. disclose or even suggest that the nonwoven web (30) is extensible, nor do Weirich et al. teach that the nonwoven web is in an extended configuration on the backing (34). Rather, as disclosed at page 8, lines 17-19 of Weirich et al., the filaments (36) of the nonwoven web (30) are in an untensioned state when they are joined to the elongated backing (34).

Thus, as was the case with Noel et al, Weirich et al. also fail to show or suggest a nonwoven loop material on a substrate wherein the nonwoven loop material comprises a nonwoven web that is extensible and is in an extended configuration on the substrate as recited in new claim 28. Consequently, neither Noel et al. nor Weirich et al. can anticipate new claim 28. Moreover, because Noel et al. and Weirich et al. each fail to show or suggest a nonwoven web of fibers that is extensible and is in an extended configuration on a substrate of the fastening component, a combination of these references would similarly fail to show or suggest such a feature.

The other references of record also fail to show or suggest all of the features recited in new claim 28.

For these reasons, new claim 28 is submitted to be patentable over Noel et al., Weirich et al. and the other references of record.

Claims 3, 9 and new claims 29-32 depend directly or indirectly from new claim 28 and are submitted to be patentable over the references of record for the same reasons as claim 28.

Claim 33

New claim 33 is directed to an absorbent article for personal wear comprising:

33. (New) An absorbent article for personal wear, the absorbent article comprising:

a liquid permeable inner layer for contact with the wearer's skin, an outer layer in superposed relationship with the inner layer, and an absorbent layer disposed between the inner layer and the outer layer, the article having a first end region and a second end region; and

a mechanical fastening system comprising at least one first fastening component disposed generally at the first end region of the article and at least one second fastening component disposed generally at the second end region of said article and adapted for releasable connection with the at least one first fastening component to secure the article on a wearer of said article, the at least one first fastening component comprising an oriented nonwoven loop material secured to a substrate, the oriented nonwoven loop material comprising a nonwoven web of fibers, said web being extensible from a relaxed configuration to an extended configuration wherein in the extended configuration a greater number of fibers of the nonwoven web are oriented in the direction in which the web is extended than in the relaxed configuration of the web, *said web being in its extended configuration on the substrate*, the at least one second fastening component comprising a hook

material, the oriented nonwoven loop material of the at least one first fastening component being adapted for releasable connection with the hook material of the at least one second fastening component.

In essence, new claim 33 is directed to an absorbent article incorporating the mechanical fastening system recited in new claim 28 and discussed previously herein. Claim 33 is therefore submitted to patentable over Noel et al., Weirich et al. and the other references of record for the substantially the same reasons as claim 28.

New claims 34-37 depend directly from claim 33 and are submitted to be patentable over the references of record for the same reasons as claim 33.

Claim 38

New claim 38 is generally directed to a mechanical fastening system for an article wherein a first fastening component of the fastening system comprises an oriented nonwoven loop material that is free from attachment to any substrate. That is, the oriented nonwoven loop material may be used to form all or part of the article without the need to secure the nonwoven loop material to a substrate. For example, ⁵Fig. 7 of the present application illustrates a side panel of a pair of training pants comprising the oriented nonwoven loop material without the material being secured to a substrate. ^{body}

^{MC 5-4-01} ^{PM 5-4-01} More particularly, the mechanical fastening system recited in new claim 38 comprises:

a first fastening component comprising an oriented nonwoven loop material free from attachment to any substrate, the oriented nonwoven loop material comprising a nonwoven web

of fibers, said web being extensible from a relaxed configuration to an extended configuration wherein in the extended configuration a greater number of fibers of the nonwoven web are oriented in the direction in which the web is extended than in the relaxed configuration of the web, *said web being in its extended configuration*; and

a second fastening component comprising a hook material, *the oriented nonwoven loop material of the first fastening component being adapted for releasable connection with the hook material of the second fastening component.*

New claim 38 is submitted to be patentable over the references of record, an in particular Noel et al. and Weirich et al., in that whether considered alone or in combination the references fail to show or suggest first fastening component comprising an oriented nonwoven loop material free from attachment to a substrate wherein the loop material comprises a nonwoven web of fibers that is extensible and is in a generally extended configuration, and wherein the loop material is adapted for releasable connection with the hook material of a second fastening component.

As discussed previously, Noel et al. disclose a disclose a loop fastening material comprising a backing (22) of orientable material, preferably a heat shrinking material, and a multiplicity of fibrous elements (28) extending outward from the backing (22). The fibrous elements (28) are intermittently secured to the backing (22) at spaced, fixed regions 32 along the length of each filament while the orientable backing material is in an unstable state. Upon movement back to the stable state of the backing material, the fibrous material is

shirred to form loops which can be connected to a hook material (52). In one embodiment, the backing material is a heat shrinkable material and in another embodiment the backing material is an elastomeric material.

Noel et al. clearly fail to show or suggest an oriented nonwoven loop material that is free from attachment to a substrate. Rather, the fibrous elements that form the loops of the fastening material of Noel et al. are secured to the backing material. Noel et al. also lack any disclosure or suggestion that the fibrous elements are in an extended configuration as discussed previously herein. Only the backing material of the fastening material of Noel et al. can be extended. However, there is no disclosure or even a suggestion anywhere in Noel et al. that the backing material can be used as a loop material, nor is there any teaching that the backing material has fibers which are oriented generally in a direction in which the backing is extended.

Weirich et al. fail to show or suggest substantially the same features that are undisclosed by Noel et al. That is, the fibrous elements (30) of the female component disclosed in Weirich et al. are clearly bonded to a backing (34). Thus, Weirich et al. lack any disclosure of a nonwoven loop material that is free from attachment to a substrate. As noted previously, Weirich et al. further lack any teaching that the fibrous elements (30) are in an extended configuration. Moreover, while the backing (34) is disclosed as being elastomeric, there is no disclosure or suggestion found in Weirich et al. that the backing can itself be used as a loop material and that the backing has fibers which are oriented generally in the direction in which the backing is extended.

Consequently, Noel et al. and Weirich et al. cannot anticipate new claim 38. Moreover, because Noel et al. and Weirich et al. each fail to show or suggest a nonwoven loop material that is free from attachment to a substrate, and which is in an extended configuration wherein fibers of the nonwoven loop material are oriented generally in the direction in which the loop material is extended, a combination of the references would similarly fail to show or suggest such features.

The other references of record also fail to show or suggest all of the features recited in new claim 38.

For these reasons, new claim 38 is submitted to be patentable over Noel et al., Weirich et al. and the other references of record.

New claim 39 depends directly from claim 38 and is submitted to be patentable over the references of record for the same reasons as claim 38.

CONCLUSION

In view of the above, applicants respectfully request favorable consideration and allowance of claims 3, 9 and 28-39 as now presented.

Respectfully submitted,

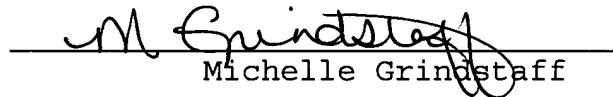


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CERTIFICATE OF MAILING

I certify that this Amendment B and eight (8) drawing replacement sheets in the application of Robert L. Popp, et al, Serial No. 10/036,573, filed December 31, 2001 is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on this 15th day of December 2003.


Michelle Grindstaff

RLB/tmg